

CLAIMS:

1. A cantilever type vertical axis wind turbine featured by comprising
an outer race side rotor having a plurality of blades for producing a rotational torque with wind,
an inner race side stationary column having one free end externally unconstrained and the other stationary end, and
a plurality of bearings mounted between said outer race side rotor and said inner race side stationary column for supporting said outer race side rotor on the inner race side stationary column.
2. A cantilever type vertical axis wind turbine featured by comprising
an outer race side rotor having a plurality of blades for producing a rotational torque with wind,
an inner race side stationary column having one free end externally unconstrained and the other stationary end, and
a plurality of bearings mounted between said outer race side rotor and said inner race side stationary column for supporting said outer race side rotor on the inner race side stationary column,
wherein said bearings include at least one bearing disposed on the upper side above said wind pressure center position, on which the wind acts on the outer race side rotor, and at least one bearing disposed on the lower side under the wind pressure center position.
3. The cantilever type vertical axis wind turbine set forth in claim 1 or claim 2, featured in that a power generator is disposed on the free end side of said inner race side stationary column.
4. The cantilever type vertical axis wind turbine set forth in claim 3, featured in that a magnetic coupling for a rotational torque of said outer race side rotor to said power generator is disposed between said outer race side rotor and said power generator.
5. A cantilever type vertical axis wind turbine featured by comprising
an outer race side rotor having a plurality of blades for producing a rotational torque with wind,
an inner race side stationary column having one free end externally unconstrained and the

other stationary end,

a plurality of bearings mounted between said outer race side rotor and said inner race side stationary column for supporting said outer race side rotor on said inner race side stationary column, and

a torque transmission shaft of a cylindrical column or hollow cylindrical shape having a function of an output shaft terminal of the wind turbine, which is connected to said outer race side rotor and passes through the inside of said inner race side stationary column in the direction from the free end to the stationary end.

6. The cantilever type vertical axis wind turbine set forth in claim 5, featured in that said inner race side stationary column is mounted on a support pedestal having an inner space, the power generator is installed on a foundation in the inner space under said support pedestal, and the input shaft of the power generator is connected directly or indirectly to a torque transmission shaft extending from the inside of said inner race side stationary column to the inner space in the support pedestal.

7. The cantilever type vertical axis wind turbine set forth in claim 5, featured in that the top of said torque transmission shaft is connected to said rotor of the wind turbine through a flexible joint.

8. The cantilever type vertical axis wind turbine set forth in claim 5, featured in that a bearing for the torque transmission shaft for guiding the rotating position while suppressing fluctuation of said torque transmission shaft is disposed on the outer periphery of said torque transmission shaft.

9. A cantilever type vertical axis wind turbine featured by comprising
an outer race side rotor having a plurality of blades for producing a rotational torque with wind,

an inner race side stationary column having one free end externally unconstrained and the other stationary end,

a plurality of bearings mounted between said outer race side rotor and said inner race side stationary column for supporting said outer race side rotor on the inner race side stationary column, and

a torque transmission shaft of a cylindrical column or hollow cylindrical shape having a function of an output shaft terminal of the wind turbine, which is connected to said outer race

side rotor and passes through the inside of said inner race side stationary column in the direction from the free end to the stationary end,

wherein said bearings include at least one bearing disposed on the upper side above the wind pressure center position, on which the wind acts on said outer race side rotor, and at least one bearing disposed on the lower side under said wind pressure center position.

10. The cantilever type vertical axis wind turbine set forth in claim 9, featured in that said inner race side stationary column is mounted on a support pedestal having an inner space, the power generator is installed on a foundation in the inner space under said support pedestal, and the input shaft of the power generator is connected directly or indirectly to a torque transmission shaft extending from the inside of said inner race side stationary column to the inner space in the support pedestal.